

Fostering Interconnections and Common Cause with Scientists in other Fields

How do we capitalize on synergies between HEP, Astrophysics and cosmology? What can HEP learn from NASA, for example, in outreach to public and policy-makers to improve support and funding for HEP? How do we deal with internationalization of science?

some experience

- work with **astronomers** for major surveys on Subaru telescope
- write papers on **condensed matter physics** using quantum field theory
- worked with **nuclear physicists** on a neutrino experiment (KamLAND)
- founded an institute with **mathematicians** and **astronomers**

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- not to speak of subfields of physics

common cause

- common work to boost budget
- hard to imagine we get more funding without pushing all science

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- outreach on particle physics using astronomy
- astronomers don't mind at all



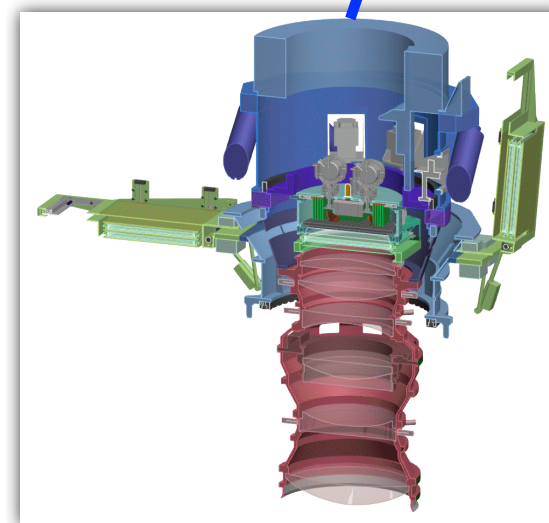
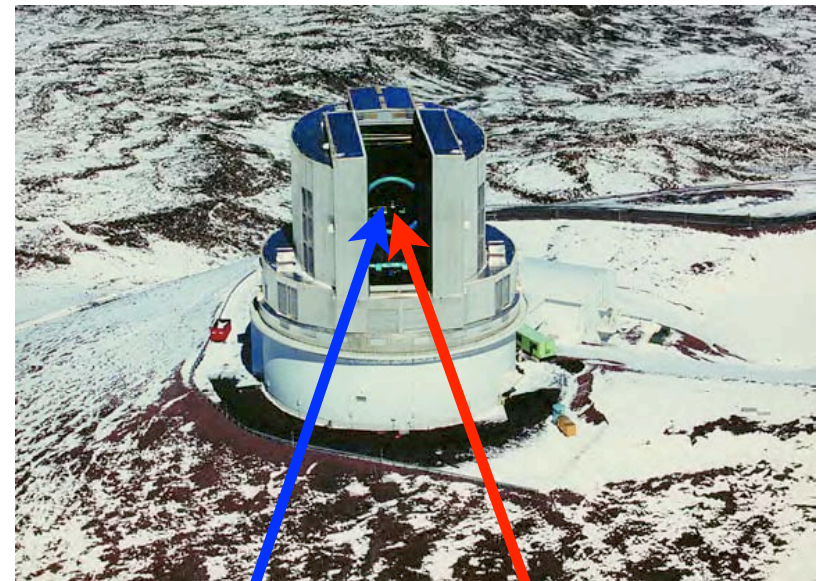
common cause

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 - hard to imagine we get more funding without pushing all science
- outreach on particle physics using astronomy
 - astronomers don't mind at all
- shared concepts, instrumentation, facilities

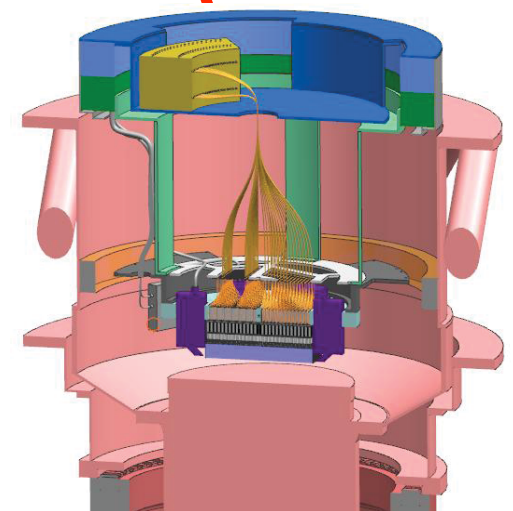


win-win

- I was interested in dark energy & matter
 - need big surveys with good instruments
 - raised funds to build them



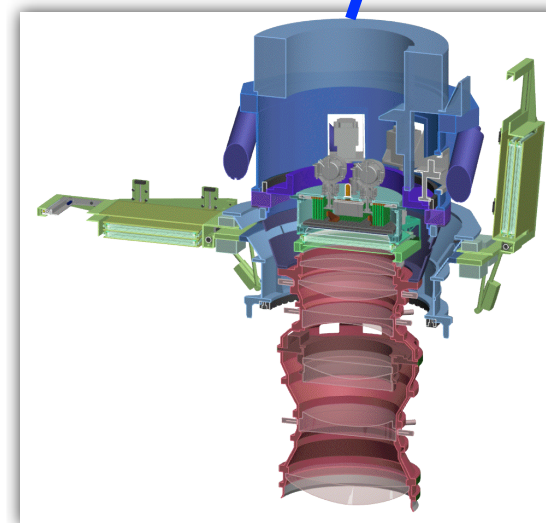
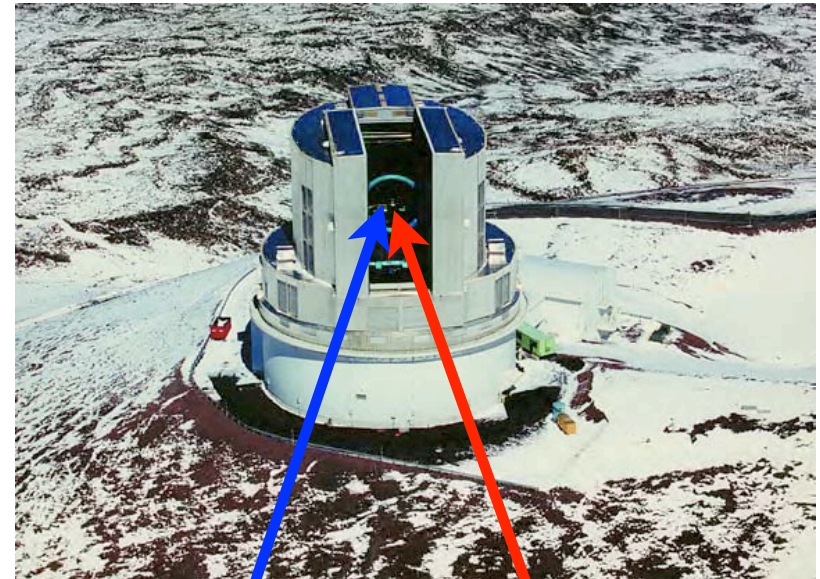
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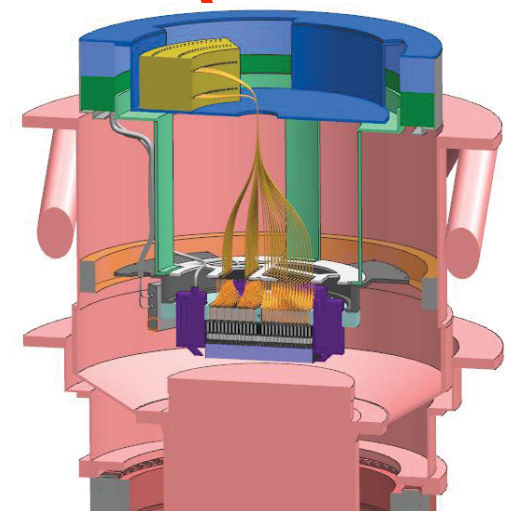
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 - need big surveys with good instruments
 - raised funds to build them
- astronomers hate to lose telescope time
 - but like to have new better instruments
 - can use data from surveys
 - telescope needs to stay competitive



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communication

- need to know each other's language
 - “fiber bundle”
- understand difference in culture
 - diversity in phenomena vs TOE
 - recommendation letters in math
- develop mutual respect, give credit
 - Higgs = superconductor

